IN THE SPECIFICATION

Please replace the paragraph beginning on line 2 of page 17 with the following:

The method of linking different proteins by intein-mediated ligation was described in International Publication Nos. WO 01/57183, WO 00/47751, WO 00/18881 and WO 00/71701; Evans et al. *Biopolymers* 51(5):333-42 (1999); Evans et al. *J. Biol. Chem.*, 274:3923-3926 (1999); Evans et al. *J. Biol. Chem.* 274:18359-18363 (1999); and Muir et al. P.N.A.S. 95:6705-6710 (1998) following from the earlier work described in U.S. Patent Nos. 5,496,714 and ~~5,839,247~~ 5,834,247. Purification of proteins by intein cleavage of a tripartite carrier-intein-antigen molecule was described in U.S. Patent No. 5,834,247.

Please replace the paragraph beginning on line 18 of page 18 with the following paragraph:

The term "matrix" refers to any three dimensional structure suitable for immobilizing a carrier. The carrier may be immobilized on the surface or within the matrix. The matrix may include for example, beads, columns, papers, glass, gel or other solid substrate. The matrix may be wholly or partially composed of a

naturally occurring polymer such as a carbohydrate, a protein, a lipid or a synthetic polymer. Examples of a matrix material include a sugar such as chitin, maltose or cellulose (U.S. Patent Nos. 5,643,758 and ~~5,496,247~~ 5,834,247).

Please replace the paragraph beginning on line 22 of page 21 with the following paragraph:

Ligand-binding molecules are widely used in biomedical research and pharmaceutical applications, such as in identification and cloning of new genes, purification and structure-function analyses of proteins, identification of ligands such as antigens, immunohistochemical localization, classification and identification of cell types, as well as disease diagnosis and treatment (Yelton and Scharff, *Annu. Rev. Biochem*. 50:657-680 (1981); Abell and Denney, *J. Natl. Prod.* 48(20):193-202 (1985); Eisenbarth, *Anal. Biochem.* 111(1):1-16 (1981)). In the example of antibodies, purified antibodies give clearer results than crude animal anti-sera in Western Blot analyses, ELISA and immunohistochemical staining and they are essential for the elimination of false positives in medical diagnosis and the avoidance of adverse effects in medical treatments (Gonyea, *Clin. Chem.* 23 (2 Pt. 1):234-236 (1977);

Jiskoot, ~~*Mol. Immunol.*~~ J. Immunol. Methods 124(1):143-156

(1989)).